

Patent  
09/785,243

LISTING OF CLAIMS:

1-6. (Canceled)

7. (Previously Presented) A cooling apparatus, comprising:

a circulating unit adapted for chilling and circulating a fluid;

a flexible elongated catheter;

a flexible tubular outer catheter body on said catheter;

a flexible, insulated, supply tube within said outer catheter body, a proximal end of a central lumen of said supply tube being connected in fluid flow communication with an outlet of said circulating unit;

D3 a return lumen within said outer catheter body, said return lumen substantially surrounding said fluid supply tube, a proximal end of said return lumen being connected in fluid flow communication with an inlet of said circulating unit; and

a flexible heat transfer element mounted to a distal end of said outer catheter body, said heat transfer element having a partially helical shape to increase the surface area available for heat transfer;

wherein said fluid supply tube comprises a wall having insulating properties to reduce heat transfer from said return lumen to said central lumen of said fluid supply tube.

8-10. (Canceled)

11. (Previously Presented) The cooling apparatus of claim 7, further comprising a blood flow passageway through the partially helical shape of the heat transfer element.